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## SOME ASPECTS OF THE EARLY SENSE OF SELF.

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In January, 1895, I printed and circulated a questionnaire (Series 1, No. VII), requesting returns on children's sense of self, to which I have now received 523 replies, upon which this report is based. Nearly all are made by teachers, and about four-fifths are collected by instructors of psychology from their pupils. Some observed a year, some two, and a very few three years, before sending in their papers, some of which were almost treatises, of great interest and instructiveness to me, and many had little or no value. In addition to these data. Mr. Street of this university has kindly permitted me to utilize 387 returns he has collected upon early ideas of the soul. Besides these sources, there have been data from probably several score of miscellaneous, incidental and uncounted papers, so that nearly a thousand persons are here represented.

I. The earliest parts of the physical self to attract attention are the hands and fingers. Sixty-four babies, mostly between two and six months of age, are reported to have examined their hands curiously, and a few showed fear when they were first noticed. Sometimes a hand would be stared at steadily. perhaps with growing intensity, until interest reached such a pitch that a grasping movement followed, as if the infant tried by an automatic action of the motor hand to grasp the visual hand, and it was switched out of the centre of vision and lost as if it had magically vanished. It is the hand in motion, however, that seems first to attract the eve. scribe an expression of surprise as the hands are moving with an unusual vigor which suddenly arrests attention for an instant, as if the eye first asked, "What are these moving white objects that are so hard to catch or follow?" The mouth has known the hand long before the eye, which first regards it as it would a new toy. It seems probable from the data that the hands know each other, in a sense which Schopenhauer thought so important a stage in self-conscience, before the eye knows them. Children of four and five months are described as attentively feeling of one hand with the other, each at the same time feeling and being felt, each subject and object to the other, and thus detaching them from the world

of external things and labeling them with a mark which will enable the soul later to incorporate them into the plexus which forms the somatic ego. The hands are stroked, grasped by each other, watched as if they belonged to another, held up and gazed at, studied and compared; one is placed in, beside, upon the other, moved and followed by the eye, held still and moved as if to get the optical effect, and hands of other children, and in one or two cases even other objects, are mistaken for their own. Some curious accounts are given of the hands having gotten under or behind the body, up the sleeve or under the clothes, and thus being lost, while the infant seems to search for them as if with growing apprehension. A girl of nine months Sometimes this stage is prolonged. loved to sit at table, apparently chiefly to play with her hands, and another habitually preferred to use her bottle to study her hands upon rather than to drink from it.

Before and after about twelve months of age, the fingers attract great attention. They are interlaced, rolled, each touched, as if in counting (and it is not irrelevant here to reflect on the enormous amount of tallying and counting that prev ailed for unknown ages before mathematical symbols and simple rules have so eliminated it that it is rarely seen save in the strange recrudescence of arithmomania), and far more rarely and later each placed against the corresponding one of the other hand. They are pulled, bitten, bent, twisted, and, of course, often persistently sucked, sometimes up to and even into school age. A boy of one year old is said to often pick up his fingers one by one, another of fifteen months to feel of each successively. A girl of two years struck her hand for pulling down a vase; and another, of the same age, pinched her own fingers because they had pinched the baby. of thirty months angrily beat her fingers for tearing a tidy. but said, as is very common, that she did not do it, but her fin-Little girls often scold their fingers. These kinds of apostrophe are probably often an imitation of the way parents whip hands that do wrong, but it is interesting that it persists and so many say e. g., "Naughty hands, you always make me bad," or, "You took the cake," "picked the plums," "broke the glass," etc. A girl of three was overheard talking to her hands, which were restless and twitchy. can't you keep still, as mamma (meaning herself) wants you to?" Two girls of three bit their fingers, one till it bled, "to see if it was really me." Besides older finger plays, like piggy, children often invent plays, as of hands and feet going to visit each other, particularly if two children are in bed. Children of three, and even five, sometimes count and recount their own fingers to see if they are all there, and those of

other people to see if they have the same number they have, or the same number on both hands.

Gynecologists tell us that the hand may "find" the mouth be-When this occurs it would seem more likely to have significance for the nascency of external physical selfconsciousness than when hands or feet touch each other or other parts of the body, because the mouth, which is a psychic focus to which everything goes to be tested in early infancy, Hence to one devoted to a Fichtean is more sensitive. dogmatism it might be said that when hand and mouth meet. body consciousness begins. If Berkeley is right concerning the incommensurability of visibilia and tangibilia, the infant gazing at and feeling its hands is, even at this tender age, committing the unpardonable psychological sin from which weary terms of epistemology in junior and senior year, under the best masters, can never wholly cleanse the soul. Even if full purgation of soul on this point be achieved, and then the adept should chance in some moment of revery to bite his visual finger, he would, at least for a painful instant, backslide to feel that it was a part of the "real me" of touch. Each hand is a subject-object to the other as their mutual acquaintance progresses, and as right handedness develops, perhaps the left hand is more subjective and the right more objective. At any rate, the right is more prone to trespass across the bilateral plane into the left's domain, and will be always honored and preferred, and the left neglected, so that this equilibrium between subjective and objective that seems so promising is soon hopelessly upset. The eye, however, intervenes just in time, and when the hands could no longer be thesis and antithesis to each other, sublates them to a new synthesis in the higher visual consciousness, which is the truth of the old mouth knowledge of them. Whereas they were projects, they are now ejects of whatever mind the infant has, and he faintly but pathetically anticipates the adult insight of their nouminal unreality as mere objective phenomena when he "finds them We have thus already the mouth-hands, the handhands and the eye-hands, at least, to say nothing whatever of other tactile body hands as the corner-stones of the ego. Each doubtless involves its own centres, although we do not yet know the precise number, tract or cortical location of afand ef-ferent fibres, and will not now pause to draw even a schematic diagram of their actions, or describe the slowly growing association fibres which knit them later into willidea hand centres, because the brain is so complex that any schemata that any of our readers may habitually use will probably be as correct as their favorite number forms, phonisms or photisms. We desire, however, to invite investigation by

those more competent than we to what seem the more important philosophical points involved, viz.: In the first contact of hand and mouth does the latter feel the former first and most, or vice versa; does the eye first find the hand because the eye moves, or because the head moves, and does a motor or a sensory process lead? What social and ethical factors are involved in the child's scolding and punishing naughty What symbolic interpretation of the child's many as yet unscheduled finger-plays would be most consonant with And finally, will the purely abthe philosophy of Fröbel? stract and deductive metaphysical psychologist tell us whether, so far, we have instinct, feeling, will, reason, attention, or mere automatism? for all that follows is, of course, utterly worthless until described at least in terms of adult consciousness, if not in those of standard metaphysical system.

A special period of "noticing" the feet comes somewhat later than that in which the hands are discovered to consciousness. Our records afford nearly twice as many cases for feet as for hands. The former are more remote from the primary psychic focus or position, and are also more often covered, so that the sight of them is a more marked and exceptional event. Some children become greatly excited whenever their feet are exposed, and especially whenever the foot gear is removed. Some infants show signs of fear at the movement of their own knees or feet covered, and still more often fright is the first sensation which signalizes the child's discovery of its feet. As with the hands, it is often their motion which first attracts attention, and they sometimes, by sudden involuntary movement, leave the field of view and become lost. Being farther away, their vertical and lateral movements subtend to a smaller angle, but they vanish easier at the bottom of the field of view because hidden by the body, clothes, etc. Infants of five to eight months who have found their feet are often described as seeking them with more or less aimless efforts, which are, however, purposive enough to reveal their intent. Later the child acquires the power to seize its feet with its hands, then to lift or kick off the clothes, and still later to remove its stockings to get at the new playthings. Many are described as playing with them as if fascinated by strange, newly-discovered toys. They pick them up and try to throw them away, or out of the cradle, or bring them to the mouth, where all things tend to go. Then comes the stage of toe-sucking, which sometimes as early as three months becomes persistent and troublesome.

<sup>&</sup>lt;sup>1</sup>See my "Notes on the Study of Infants," Pedagogical Seminary, Vol. I, p. 130.

In our record of sixteen marked cases eleven are with the left toe. The same experience of biting, as with the hands, often occurs, and the child perhaps cries with the pain many times before it really associates the bite and the ache. Sometimes this association seems to be marked by a distinct series of experiments, and some children old enough to talk express this newly-made experience by saying, "I bite and you hurt," or, "It aches when I bite." Our protocol contains the word "examine" twenty-seven times and "watch" thirty-three times to describe this special direction of attention. Children often handle their feet, pat and stroke them, offer them toys and the bottle, as if they, too, had an independent hunger to gratify an ego of their own.

The toes are a still more specialized class of playthings which are plucked and pulled, sometimes with signs of surprise that they cannot be played with like a rattle. Later vet comes the record of foot and toe movements made for the eye, marking probably the time when these motor impulses are associated with retinal impressions. Before the age of one year, children take pleasure in games with the mother or nurse which involve giving names of animals, etc., to each toe, as they do earlier with the fingers. Various foot games are often made a distinct event which is regularly expected at bed-time, in the morning, or at bath. Children often develop at this time a special interest in the feet of others, and examine, feel of them, etc., sometimes expressing surprise that the pinch of the mother's toe hurts her and not the child, or comparing their own and the feet of others point by point. Curious, too, are the intensifications of foot-consciousness throughout the early years of childhood whenever children have the exceptional privilege of going barefoot, or have new The feet are often apostrophized, punished, beaten sometimes to the point of pain for breaking things, throwing the child down, etc. Several children have habits, which reach great intensity and then vanish, of touching or tickling the feet, with gales of laughter, and a few are described as showing an almost morbid reluctance to wear anything upon the feet, or even to having them touched by others, so that they must perhaps be washed by force or strategy. The common habit of lying upon the back and tramping the soles against a vertical wall, as if to anticipate walking, seems sometimes to have a period of special intensification. babies, otherwise normal, used their toes for grasping playthings and block-building so exclusively that they had to be coerced to use their hands instead. Others acquire the trick of rubbing the feet together with expressions of great glee, as older people rub the hands together. Several almost fell in

love with the great toe or the little one, especially admiring some crease or dimple in it. dressing it in some rag of silk or bit of ribbon, or cut off glove fingers, winding it with string, prolonging it by tying on bits of wood. Stroking the feet of others, especially if they are shapely, often becomes almost a passion with young children, and several adults confess a survival of the same impulse which it is an exquisite pleasure The interest of some mothers in babies' toes, the expressions of which are ecstatic and almost incredible, is a factor of great importance. On the whole one cannot read these plain and homely data without querying whether some of these exacerbations of this group of experiences may be laying some of the psycho-physical foundations for the foot fetichisms which may later appear in degenerates after the dawn of sexual maturity.

Twenty-three returns show that infants of thirteen to fifteen months of age sometimes have a special period of being interested in their own knees, and one society of school girls adopted the custom of wearing rings on the toes as their distinctive badge. Throwing or pulling both toes and fingers out of joint and making them crack is a frequent fad of school life.

Next in order comes acquaintance with the ear. Some infants of only three or four months of age develop troublesome habits of pulling their own ears, perhaps while nursing; others pull and sometimes scratch them repeatedly till they cry and the ear bleeds. Several children of six to ten months cannot sleep without feeling their own ear; three want it folded up and tucked into the meatus; four cannot nurse without feeling the mother's ear; a few form the habit of seizing all ears within reach, or, perhaps more particularly, those of the cat or dog. Some form of this habit often persists for A girl of four incessantly feels of her ears, each with both hands, fearing they may be lost. Children occasionally suffer from fears, probably often suggested, of almost morbid intensity and often of years' duration, lest their ears are growing too large or small, or taking on the shape of those of an animal, or may become hard or bone-like, or droop like a A girl of eleven has a veritable passion for pulling, feeling, or touching her own ears and those of her friends. Four young ladies of high school age confess to a fad for ears; are chiefly interested in that organ in all strangers, get impressions of character from its shape or color. Some state that nothing could overcome the effect of bad ears for their affections. Some wish to feel the ears of all their friends. Some children persistently shake the head like a dog to feel the ears move, or try to cultivate the power of moving them

with the scalp muscles like the horse. Others incessantly pull them out or turn them toward the front at night, that they may stand out from the head, or else stretch and flatten them, or pull the lower part down, and every one has enjoyed stopping the ears and opening them with the hands, perhaps alternately. This, of course, only occurs after the child has learned, or it may mark, the first consciousness that hearing is associated with the ear. Children often think they hear with eyes, feet, or hands. Many children have a strong impulse to push everything possible into the ear, from which habit, as physicians know, dangerous results may follow. other hand there are often fears almost of morbid intensity lest some insect should penetrate the ears, or perhaps the devil's darning-needle pass in at one and through the head out of the other. The specific noise hunger often comes before it is associated with the ear, and as it is well known prompts infants often to pound things and make a din which is distracting for adults.

The nose in many children, although less often than the ear, has a more or less marked advent in infantile consciousness, and some children exhibit a very distinct period of interest in it. Although it is rarely large enough to be grasped, it is felt and with marked signs of curiosity, and sometimes pulled and rubbed by the child in an investigating way. familiar adult trick of pretending to pull it off may account for the fears of some children that it may be lost. often try to make it longer or shorter. One permanently deformed her nose by pressing and pounding it against the head-board of her bed so it should not turn up. The nostrils often excite distinct attention, but in this respect, as well as in the propensity to explore with the fingers or stuff things into them, are not unlike the ear. From our far too meager data it would appear that the average age when children learn to associate sensations of smell with its organ is about three months. Then they begin consciously and ostentatiously to sniff and smell, and sometimes to explore the nostrils.

The hand is known or sensed by the mouth, the other hand and the eye; the foot by the hand and eye, and very little by the other foot; the ear by the hand only; and the eye is known by no other sense save very slightly by touch, and is the last as well as the highest sense to become objectified.

The first object to hold the wandering gaze of the newborn child is its mother's eye. The eyes are throughout early childhood the centres of chief fascination, so that it is strange that children often know almost nothing of their own eyes. Many children from three to five months think that their own eyes, unlike those of others, are always closed because they

find them so when touched, and some describe it as a misfortune or deformity that they are doomed to see by squinting with difficulty through the lids, so that when the mirror is seen and understood there is often surprise to find they are Many children spend much time before a glass studying their own eyes, and develop a fad for examining the color or watching the movements of the eve-balls and lids of other people. Whether it is the motion, the glitter of the reflected light, or the concentric arrangement of iris and pupil, it is hard to determine, but interest in eves is so primitive and strong as to suggest the need of further special consideration of this point. Infants have often an instinctive propensity to thrust their fingers into other people's eves, either to feel of them or to see them shut. The bright point reflected from the ball is often thought to be an agent in seeing, which is sometimes thought to be but emitted light. Yet children often become discriminative of large or small, prominent or depressed, but particularly sharp and fixed or rolling eyes. Pictures sometimes have to be removed from nurseries and kindergartens because the eyes haunt sensitive children. The eye seems to be one of the very first media along with touch through which the child comes into rapport with the parent; even older children always gaze at the eye rather than the mouth of others and take at first far more meaning from it than they gather from words. They are very susceptible to evebrows, expression around the eyes, and generally fear big or glass eyes. When consciousness has once grappled with the eye it is often felt, pressed, rubbed the lids sometimes manipulated, and the child almost seems to be studying pressure-phosphenes, when it is probably intent only upon learning the pain threshold for all these It may well be doubted whether Socramanipulations. tes. if he could have done what he claimed to be able to do, viz., turn his prominent eves inward till each gazed full into the other across the narrow bridge of his nose, would have added to his self-consciousness thereby; but children are often persistently prone to squint the eyes inward, gaze at the point of their nose, evebrows, hair or tongue until in positive danger of becoming cross-eyed. This, however, is only one of the many eye-gymnastics of childhood. The eyes are zigzagged vertically and horizontally rolled up and down to the extreme limits, gyrated and winking habits almost to the point of nystagmus are formed. The eyes are alternately closed and opened, and several children in our returns take pleasure in attempting to go for hours, and even days, with one eye partly or wholly closed, and sometimes both, in imiation of blindness. Eye affectations would form almost a chapter by themselves; the modes of casting them down or up, making eyes, looking coyly askance or glancing quickly, trying to make them snap, flash, shine and reflect all the fluctuating moods and whims of juvenile instability of soul, are well known. The eyes, perhaps even more than the hands, feet and mouth, seem to be the centre of that kind of self-consciousness which is always mindful of how the self appears to others, and what to do with the eyes in the presence of strangers is a more difficult problem at the awkward age than what to do with the hands and feet. Finally must be mentioned the very common impression of young children that if the eyes are covered or closed they cannot be seen. think the entire body thus vanishes from sight of others, some that head also ceases to be visible, and a still higher form of this curious psychoses is that when they are closed the soul cannot be seen.

The hair is a special object of interest with infants, which begins often in the latter part of the first year, and depends much upon its abundance. Infants must learn also that a too drastic treatment of this part of their personality causes pain. In very early infancy the propensity to clutch the hair or beard of adults and, especially having grasped it, to cling with almost convulsive intensity, suggests the obvious atavistic relation to the necessity for anthropoids of arboreal habit to cling to the shaggy sides of their parents. Some deliberately try to pull it out. One cannot doubt from these returns that many, if not most, children have a distinct period of first noticing the hair, and that it may be for days or weeks an object of prominent interest. It is clutched and pulled, stroked, and more often persistently rubbed, occasionally till it is worn off at some favorite and accessible point. develop, perhaps from the pain of combing out snarls, a morbid horror of having it touched, which may become of convulsive intensity. Some children take pleasure in stroking or "pooring" it, especially when they feel happy, or are good or praised, and pull it madly when in anger. is long enough it is often chewed, sucked, bitten off, and three cases are described of children who have shown a marked propensity to pull out their hair as if by some trace of the atavistic instinct which has caused the depilation of the hu-The hair, no doubt, gives quite unique tactile sensations, both in its own roots and to hands, and is plastic and yielding to the motor sense, so that the earliest interest may be akin to that in fur, which is a marked object in infant experience. Some children develop an almost fetichistic propensity to pull or later to stroke the hair or beard of every one with whom they come in contact; but it is not until well

into the second year that the average child develops rudiments of pleasure in or even consciousness of the coiffure.

Teeth are sometimes a terrible object to infants, like big eyes, but like all feared objects there is later a special interest in them as fear is gradually overcome. When the first teeth appear, there is, of course, great sensitiveness in the gums, but also distinct interest. The propensity to bite everything is at first a blind instinct in the service of the process of cutting through the gums; but when a few teeth appear there is a revival of the early mouth consciousness and everything is bitten as everything used to be sucked. teeth may cause as much perturbation of consciousness as the first trousers or boots. Children may incorporate in their prayers thanks to the good Lord for giving them teeth. They are felt of and sometimes shown, and their imprint is occasionally left not only upon objects, but upon the persons of others as well as upon themselves. Sometimes children bite their own flesh severely, as if they did not realize how much more effective their jaws have become. There is a long list of cases of children who have bitten each other, or even toys in anger at this stage, suggesting that along with the teeth there is also growing the strong psychic disposition to use them as primitive animals do theirs. Children sometimes come to be particularly observant of the teeth of other children, and these, like the eyes and other organs, may become very important in mediating likes and dislikes, especially toward adults. The mouths of their parents are explored, and perhaps their own teeth studied in a mirror. milk teeth loosen and are removed and others take their place. there is great interest in the general subject of teeth, and there are sometimes volleys and batteries of questions concerning the teeth of animals and insects, God, etc. Teeth with gold fillings are often an object of great interest or admiration.

Less prominent than any of the above in our returns are a few other miscellaneous parts. It is surprising to see how small and late is the attention given to sex. While in several cases apparently morbid these organs early assume great prominence in consciousness, and sometimes even vicious propensities occur in the first year, the normal child sees and cares little about them. Questions are often asked, but receive answers which easily satisfy the curiosity and mini-Sixty-three girls expected when they were mize interest. older to be boys, and fourteen boys to be girls. This change. however, involved no thought of organs, but mainly only of dress. Almost the same might be said of navel and nipples. While a brief chapter could be written upon the consciousness of these parts, it would be largely morbid and, though full of psychological interest, is aside from our purpose here. The act and products of excretions by bladder and bowels is often an object of interest hardly less intense for a time than eating and drinking, and many scatalogical rites of savages are suggested as paralleled by acts which cannot be recorded here.

The tongue is a magnet for the attention of young children, and it is often felt of, pulled, protruded, made into all shapes, and used for various clicks and noises. Some children develop acute fears of swallowing the tongue or losing it. curious to note the literalism displayed by some who, having heard the epithets especially applied to it, fear it will cut or bite, and attempt to punish it for insubordination, or later for A boy of four, severely censured for untruth, was seen pulling at his tongue with the purpose of tearing it out, and succeeded in drawing blood. Tongue-touching is a game, and children often challenge each other to touch icy, nauseous or other substances to it. Some children insist on licking the cheeks, necks, hands of those they wish to caress; having cats, dogs, horses and cows lick their face. position to lap, not only solid objects of food but also liquids. is persistent in some children, and not a few have a special period of interest in seeing and occasionally feeling the tongues of other children and even of animals: to have the smallest tongue is sometimes a desideratum among groups of little girls, whose form of speech may be influenced by this affecta-When tongue consciousness is at its height children sometimes affect peculiar positions of it and may press the tongue between the slightly opened teeth in smiling, or give it other positions that affect the facial expression in a laugh. Tongues certainly differ much in mobility, and in some children they can be made to assume a great and surprising vari-Closely connected, too, are the early forms etv of positions. of voice consciousness, when every quality of tone is made, high and low, loud and soft, aspirate and vocal, clicks, gutturals, prolonged and staccato, tremulo and steady imitations of sounds of notes, wind, cars, cries of all animals and of babies.

The nails of toes, and particularly fingers, are attended to not uniformly, but at times much accented in consciousness, and there may be great dread of having them cut or even examined. They are gazed at, felt of, pulled, bitten, and some children develop a strange propensity for scratching. Occasionally this propensity is directed toward most objects of touch and is a part of the exploration of the objects of the environment. Things are not known when seen and touched alone, but must be scratched. The sensations thus given are unique, and are a class by themselves. A German medical

writer has advised that the finger-nails of children should be kept not so long that bacteria can accumulate under them, but not so short but that these sensations can have due development. The propensity to scratch faces in anger is in some children intense and cat-like, so that it becomes imperative to have special care of their nails, to avoid danger. Several girls in our returns develop a sensitiveness, which is probably morbid, against the least roughness of the nail-tips which give them symptoms akin to horripilation, and one child had a morbid propensity, sometimes seen in insanity and anæsthesia, to thrust slivers and other small objects under the nails.

Many cases of special attention to miscellaneous parts of the body were noted. Some children show a special consciousness of their shoulders, chin, the size and form of their mouth, the ankle, wrist, neck, and any defect or abnormality is certain to be the seat of acute self-consciousness. Perhaps the propensity of making faces is one aspect of growing selfconsciousness, and if so, the disposition to twist and distort every joint into extreme positions, both actively and passively, no doubt helps on this development.

In fine the ego may be first roughly conceived as all that is within the skin, and the non-ego as all outside it. subtle, unanswerable questions have been asked, what parts of the cell are vital and active and what are passive, dead, or products of decomposition; when is food completely assimilated and really a part of the physical ego? In a sense all we own is part of the psychic ego, but in a sense food that is swallowed has only entered a tube that passes through the physical self, and is as objective to it as if applied to an external surface. The infant has to learn by slow steps the contours of his personality; beginning with the more mobile parts, the trunk is least and last known, and children are well on toward school age before they have a definite conception of the unseen and especially of the unfelt parts of the body, as witness the frequent neglect of boys to care for the hair on the back of the head. Drawings which always represent the head and limbs, then perhaps fingers and toes, and last the body, are thus a fair index of this progress.

II. Within the surface, the child's somatic consciousness does not at first penetrate. The skin is often pinched, pulled, scratched and otherwise explored; but is never thought of as a continuous limiting surface, at first, but later such questions as, "Could I jump out of it and another get in?" "Would it fit, stretch, shrink?" etc. "How could I get out of it?" "How would I look?" etc., are common. Much washing and rubbing develop the dermal consciousness, and in several

returns even itching and scratching provoke special attention to the skin. Children often take much satisfaction in stroking and "pooring" themselves and other persons, and if nervous acquire extreme sensitiveness to any degree of roughness. The most marked dermal impressions throughout childhood are thermal.

At the age of from 3 to 5 the bones are generally noticed, and there are many questions concerning the hard things under the skin. Some think them wood, iron, stone, etc. On learning that they are bone there are many flitting fears, sometimes that they will break or that dogs or other animals who love bones will eat them, or again that they have a horrid skeleton inside them, and there are many curious forms of weird bone fancies and scores of questions as to their purpose, material, size and shape. Often the knee-pan is the first bone in our returns to become an object of special interest; next comes the elbow, and then the wrist and joints. Bones are generally the first and for a time the chief object of curiosity within the body, and the discovery that cats and dogs have bones is often an event, and their size is often vastly magnified, and their shape curiously discussed.

Next comes the stomach. Its sensations of plethora and often pain, its associations with food and drink, are early. Many children believe that the entire internal body save the bones is a receptacle for food, and that it fills arms and legs. so that if the skin were anywhere cut, food would be found to be the stuffing. Some believe it hardens directly into bone. Often whims concerning appetite have affiliations with the weirdest kind of ideas of the alimentary tract. Many children conceive of the body as stuffed with saw-dust or with cotton like a pin-cushion, or with dust of which man was made, or else sweepings. On pricking or injuring the skin and seeing blood, many form the idea, often no doubt from inadequate answers to their questions, that the entire body is a skin or bag filled with blood and if it is tapped blood will gush out and the body collapse like a balloon. They often notice the pulsations of the heart and think some one is pounding inside them, and may even develop a definite image of how the man looks and how he strikes. Few organs inside the body excite so much curiosity as the heart, but the questions show that this is in large part due to its association with life and the soul, which is often identified with it even Upon noticing the activity of respiration children almost always begin to experiment; they exhale all the residual breath possible and inhale a maximal amount, breathe as fast as possible and as slow, experiment with costal and abdominal modes, and particularly hold the breath often in

rivalry with each other, the higher centres thus learning control of the reflex apparatus. Very many, too, are the questions—"Why do we breathe?" "Do animals, plants, God, etc., breathe?" "What is breath?" There are many morbid fears lest respiration should accidentally stop, and many children resolve to lie awake to prevent this calamity. At this time the claustraphobias may take their rise, and there develops unusual dread of being hugged, choked, smothered in close places, being shut into closets, trunks, etc. Some have for a long time the conception that the body is a bag of wind, and some children are panicstricken on seeing their breath on a frosty morning, thinking the soul is escaping. Perhaps there was some truth in the antique conception that dreams objectified this function, and when in nightmare we seem to flutter and hover, it is the lungs which play the stimulating rôle and suggest the thought of wings.

It is a revelation of great significance if this inward direction of thought has been aroused to learn what the country boy finds out on butchering day. Such experiences, although slight and without demonstration, cause a great and wholesome readjustment of this aspect of self-consciousness by showing both the nature and the relation of the parts within. The two most frequent questions throughout are, first, "Why have I stomach, eyes, hands?" etc., or a question seeking purpose and use; and secondly; "Have other human beings or animals the same organs?" And to realize that parents. playmates, or dog, horse and cow have legs, eyes, teeth, ears, stomach and heart as they have, always excites interest and No child, of course, has all these experiences in the foreground of its consciousness, but all have some, and doubtless pass through, some more and some less consciously, all these phases, the definite order of most of which still remains to be determined. The internal sensations and conceptions are, as we shall see later, those most intimately associated with childish conceptions of the soul.

III. The third element in the child's consciousness, but not usually included as a factor of the ego, but which must not be neglected, and on which our returns are voluminous, is dress and adornment. Rings for fingers or ears, shoes and gloves attract the child's attention to the part involved, and a change of dress often involves change of disposition, and almost character. During the second year this is often strongly developed. Corresponding perhaps to the prominent position of the foot in the infantile consciousness, a new pair of shoes seems quite as important as a new dress. Far later, too, gloves come into great prominence. Very striking with young

children is the charm of some single and perhaps small feature, as, e. g., a pair of shoes with buckles, stockings with clocks, jacket with bright buttons, a hat with a feather, a bit of fur here or ribbon there, a sash with buckle. So, too, the first pocket, the first trousers, suspenders, long pants or dress, first watch, parasol, muff, gloves, ring, necklace, standing collar, perfumery, new ways of wearing the hair, the first belt, breastpin, veil,—all these stand out in memory in the most vivid way, and have played an important rôle in the education of self-consciousness. The passion to have new things noticed, which often makes children so ridiculous, seems sometimes strongest to strangers and sometimes towards friends. This seems to mark an important moral distinction. For most girls all new articles of dress and ornament become doubly dear if liked or admired by those they know and love best, and lose their charm if the latter do not care for them.

Lotze rather curiously thought he had done for personal adornment a service comparable to what Kepler had done for astronomy by his three laws, in which he believed he had explained man's satisfaction in dress. If we touch an object with a stick, we instinctively analyze our sensations into those felt by contact of the hand with the stick, and ascribe the rest to the object at the other end of it. It gives us thus a peculiar pleasure when consciousness runs through all that touches us, and this we feel in those articles of attire that lengthen the body by prolongations of our personality at the head or feet—high shoes, stilts, hats, head-dress, etc. thinks that all these forms of feeling change with every change of their height and form, which shifts the centre of gravity. and there is special satisfaction when equilibrium is the least trifle in danger. We feel the wind or our own motions by very different sensations in hats that are high, broad, obliquely placed, or heavy. Secondly, all hanging, fluttering or swinging garments, by their change of tension in different directions, cause us to feel ourselves most agreeably in the peripheral tract or graceful curves of their free moving ends: a trail dragging along the earth is like a new organ, endowing us with a new sense. Rings, ribbons, ear-rings, watches, sashes and everything that hangs and dangles are worn especially by the young, not so much for display as to gratify the exquisite pressure sense so peculiar to them and which, according to the modern fashions, free, flowing hair no longer does. Lastly the impressions we derive from our own clothing and its strength, stiffness or thickness our self-feeling imputes to the form or poise of our own body. The pressure of a corset, Lotze thinks, awakens the feeling of a stronger and

more elastic existence; so girdles, bracelets, and above all the first pair of trousers with suspenders gives a pleasing sense of sturdy inflexibility, and uprightness. If this view is correct it follows that we admire the folds of a graceful, well-fitting garment, not for its beauty, but that we unconsciously reproduce in ourselves the agreeable sensation of the wearer's body. So the false arm or leg half deceives even the wearer as to the boundaries of his own corporeal existence.

This view is very extreme. The great pleasure in wearing new and beautiful objects of attire in childhood is to secure thereby the attention and interest of others. Our returns abound in accounts of children who display and protrude new articles of dress, or call attention to them in the most vain and laughable way. Moreover the fact that even children will wear thin clothes when heavy ones would be far more comfortable, shoes that are too small for the sake of looks, and garments that are uncomfortably tight or thin in places, shows the dominance of those functions which Lotze disregards. The chief question is, and especially with girls, not how attire feels, but how it looks, and this standpoint dominates often in those garments that are not seen. child who is habitually well dressed learns to avoid acts and environments which tend to soil his clothes and may become dainty, finical, fastidious and effeminate. The child who is rudely and poorly dressed, on the other hand, comes in closer contact with the world about him and acquires a knowledge more real and substantial. It is difficult to determine which pleasure is the greater, that of habitually well dressed children when very exceptionally allowed to put on old garments that cannot be injured and to strip head and feet and abandon themselves to the natural freedom thus given, or of very poorly clad children who by some good fortune are provided with attire that enables them to feel the great luxury of being well dressed. Children sometimes develop an insistent impulse to strip off parts of and occasionally all of their clothing, partly from sheer discomfort. Pants as usually made are an unphysiological and unhygienic garment, and much might be said in favor of a more rational dress for hips and thighs. There are cases of persistent denudations in childhood that are morbid and atavistic. Of the three functions of clothes, protection, ornament and Lotzean self-feeling, we must, I think, conclude that while the first is more important, the last is most infrequent and the second by far the most conspicuous in childhood. Many mention a corroding kind of self-pity with which they regard an old garment after it has been superseded by a newer and better one, and others preserve for themselves and later for their children all the articles of the dress of childhood and infancy. and regard them later with feelings curiously described, and no doubt still more curiously mingled. That, however, man's primitive body consciousness has been largely disguised and translated into clothes-consciousness, there can be no doubt. The comfort of clean garments, sensitiveness to texture and thickness, flexibility and fit are elements which are no doubt always present, and Lotze has done a real service in showing us that clothes are an integral part of our self-consciousness. The love of wearing the dress of adults may be interpreted thus, but clothes are at best alter ego and also in part mask and distort the primal sense of the physical self. Cleanliness of body like clean dress has a prodigious moral effect on children, who change manners, temper, conduct, and put on a better self after being well washed. A wise application of clothes—psychology can do very much in rightly poising a child at the golden mean between too much and too little self-consciousness if not between excessive shyness and over-boldness.

The mirror is a factor of great importance in this connection, for to it childhood owes a far more definite and visual image of its own form, feature, attire, acts, etc. It enables man, as primitive reflections in water did not, to see himself as others see him, and along with photography has given to self-consciousness a far more detailed objective and real form. The images thus seen are not like shadows and dimmer reflections thought to be soul-like, but are like the real physical self. We owe to this source a more exact and abiding impression of whether we are beautiful or ugly in feature, contour, complexion or action, and can rank ourselves more impartially in comparison with others. This knowledge may act as fatalistic discouragement or be the basis of a rank conceit; but its presence is an element of great importance. Many children inquire concerning their own beauty or attractiveness, feature by feature, of mother and mates, and it must be admitted that no true mirror or photographic plate is proof against the effects of flattery. Young children, if held before the glass when angry or crying, often change to laughter. Many hold long conversations with their reflection, addressing themselves in the second person. Some correspondents regret the invention of the mirror, but more think every one should occasionally study his own features, complexion, smile, gait, bow and other common acts, or insist that all should habitually see their entire figure behind, as well as before, in order to know self better, both for their own sake and that of their friends.

V. The names by which children are known are a factor of consequence in the early sense of self.

In response to the request to write every designation applied to children, not omitting the silliest effusions of maternal tenderness, 780 different terms were received. these 54 were usually applied with the prefix little, 14 with the prefix old, 5 with young, 13 with mamma's and 9 with The majority of these appellations appeared only once, but some were repeated many times. The favorite epithet was Pet, which was returned 52 times; then come Darling 49 times, Baby 41, Honey 31, Sweetheart 31, Sweetness 30, Kid 27, Sugar-plum 23, Brat, Dumpling, Tootsy-Wootsy, each 20; Bub 19, Sissy 16, Angel and Ducky, each 15; Birdy, Chatterbox, Puss, Pudding, Chicken, each 13; Precious and Dolly, each 12; Rascal and Popsy-Wopsy, each 10; Daisy, Fatty, Kittie, each 9; Lamb and Sonny, each 8; Jewel, Girlie, Bibbie, Dearie, Sunbeam, each 7; Monkey, Mischief, Midget, Rosebud, each 6; Sweetmeat 5, Bunnie, Dicky, Curly-head, Cry-baby, Nuisance, each 4; etc.

Among the pet names applied to babies those of animals are very common. They are called ape, monkey, coon, kid, pig, Billy and Nanny goat, kittie, puss, pup, rat, calf, mouse, titmouse, dormouse, cow, horsie, chipmunk, salamander, turtle, lamb and lambkin, periwinkle, pollywog, mink, oyster, crab, goosie, chick, dove, duck, cuckoo, tomtit, robin, bobolink, chickadee, pigeon, blackbird, crow, jaybird.

Names from the vegetable kingdom are common, such as apple-blossom, apple-dumpling, apple-core, apple-cart, sweet apple, pippin, peach, turnip, hazel, comfrey, pumpkin, strawberry, bud, blossom, pink, daisy, honeysuckle, tulip, buttercup, poppy, dandelion, sun-flower, peony, heartsease, beanstalk, chickweed, bluebell, harebell, Mayflower, peep-o'-day.

Babies are often named from some part of the body or from some physical trait, as snooty, bow-legs, thumbkin, bony-legs, fatty, neck, elbow, shorty, skinny, babeskin, brick-top, runt, curly-head, frowzletop, bushel, bundle, blue-eyes, bright-eyes, warty, reddy, shinny-bone, hair-pin, clothes-pin, tuning-fork, tow-head, lunky, chub, slab-sides, snow-ball, pinkie, nigger, golden-hair, pug, butter-ball, buster, broom-stick, bean-pole, browney.

Even dress and other externals may suggest names, as boots, pants, buttons, smutty, shirtie, buttermilk, milksop, scarecrow, gig-lamps.

Character appears in such terms as old sober-sides, touchme-not, cry-baby, crank, busy-body, blarney, high-flyer, dude, dirt, fraid-cat, girl-boy, pert, Miss Independence, Miss Giddy, Miss Contrary, mutton-head, jade, chump, trot, yahoo, moper, harum-scarum, tricksy, sauce-box, wretch, villain, rascal, vixen, varmint, torment, tease, tender-heart, piety, tramp, trump, numb-skull, cross-patch, charmer, scaliwag, humbug, wild-fire, clod-hopper, romp, sunshine, smartie, sorry, sugar, cold-molasses, stick-in-the-mud, skin-flint, tom-boy, tell-tale, zany, Miss Sarcasm, lucky, slob, pest, Puritan, minx, nincumpoop, long-tongue, hussy, lunatic, pesky.

Closely related to the above come names suggesting characteristic acts, as wobbler, patticake, snoozer, chatterbox, trombone, tot, toddles, toddlekins, sticking-plaster, sucker, tumble-boy, bunter, rooter, bottle-boy, soap-sides, sot, snug, sozzle, sneak, lob, jabberer, music-box, hee-haw, cuddler, butter-fingers, squaker, squeaker, noisy (because so silent).

Names suggesting food and the sense of taste were common, as honey, sweetness, sweetie, sweet, sugar-plum, bun, sugar, dumpling, yum-yum, cake, sweet-meat, mint-drop, cream-cheese, chocolate-cream.

Repetitive and alliterative terms which appear in these returns are lovey-dovey, roly-poly, kit-cat, hun-pun, airy-fairy, unky-dunky, tootsy-wootsy, popsy-wopsy, flim-flam, hodge-podge, nizzle-nozzle, soft-snap, bed-boy, bottle-boy, piggy-wiggy, nipperty-tuck, buz-fuz, till-the-bell, the October-will, mumblety-peg, posey-woosy, lamie-wamie, orty-warty, highty-tighty, ducky-darling, bity-wity, enty-twenty, flibly-flab, etc.

Supernatural designations were angel, cupid, imp, devil,

idol, phœnix, sphinx, spook, witch, cherub, puck.

Fictitious personages appear in, e. g., Annie Rooney, Bill Nye, Dodo, Miss Muffet, Little Boy Blue, Humpty-Dumpty, Uncle Sam, John Bull, Dick Turpin, Two-Shoes, Topsy, Queen Bess, Hop-o'-My-Thumb, Punch and Judy, Ouida, Old Joe Jenks, Ornary Jim, McGinty, Josh Billings, Dixie, Rob Roy.

Often proper names not their own are applied to children as pet terms, e. g., Becky, Teddie, Polly, McGurdy, Pete, Gretchen, Molly, Sally, Bob, Pat, Peggy, Nancy, Ned, Loretta, Lib, Lizzie, Mosey, Jack, Jake. Often a string of these are applied to a child, as Betsey-Jane-Maria-Ann-Betsy-Rubbage-Burney. Changing and exchanging names with their friends so as to act and be another person for a while must have a significance which, suggestive as it is, we cannot fully explain.

Terms used with more reference to their sound or noises than to their meaning seem to be lolly-pops, snooks, weezy, buggins, skeesucks, skeedunk, skite, coot, thimble-rigger, sniggle-fist, fliberty-gibbits, smuggie, chickapin, bodkin, slab-dab, fiddle-de-flumps, nobs, nibs, ninny-hammer, gicks,

gibbits, pot-snap, dot.

Miscellaneous are aborigine, chum, cub, urchin, chap, thug, dew-drop, cud, star, diamond, diamond ring, curiosity shop, zip, young kit, squab, pearl, lugs, snow-drop, gipsy, Indian, mince-meat, Godie-on-wheels, Jim-cracks, cash-cord, ex-post facto, bow-wow, mamma's life, heart, sun, precious, jewel, bug-bear, cruddy, coddie, old-beeswax, tike, bitzen, swonk, buzey, gudgey, ducky-do, skidd-a-more, jusi, greaser, ragbaby.

Till the age of three one girl knew no other name than One girl was called dolly from resemblance to papa's devil. a certain doll till her true name was lost. At the age of nineteen one is still called baby by her grandfather. Mary called herself bay for baby, and it stuck to her as a young woman. Revilla was small and came to be called Minnie by all. girl was called Jennie, till at the age of eight she ordered a change and would respond only to Ida, which became her name. Elizabeth used to call herself Liberty, and that is still her name at the age of nineteen. Till eight one had no name but sissy. A girl of thirteen knows no name but stick-inthe-mud. given her by her father. At the age of five Rose became cross if not called Ella, and Ella she became. of twelve had no name but sweet, when she chose Anna Julia; and a boy sixteen, reared by a wealthy aunt, has no name but goody. Two twins had no name but baby till five. although often distinguished by the descriptive epithets warts and reddy. A girl ran away to Mr. Wetzelsterns, and was called Peggy W. up to the age of ten. Till the age of eleven one had no name but boy. Sometimes when they begin to write and go to school, or at the latest in the early teens, such children begin to feel the want of a real name. Children occasionally swap names, or one takes the other's name; one, e. q., becoming Ida I and the other Ida II. Humorous names suggested for twins were Pete and Repeater, Max and Climax, Kate and Duplicate, etc.

Diminutives concentrate attention to a more intense focus, and every language has them. Adolescent girls torture their names, and often give themselves new ones, especially to add a characteristic ie to an appellation for the exclusive use of their most intimate friends, somewhat as Germans use du in place of Sie, or the French tu for vous, and secret names for the dearest friends are common. Boys, on the other hand, tend to ruder nicknames. A new boy who called all his schoolmates Thomas, James, William, instead of Tom, Jim, Billy, was voted a prig, and generally disliked. There is something wrong with the head or heart of parents who make a point of calling their children Elizabeth, Margaret, Sophia, Robertus, etc., from infancy, as do a small but ultra respec-

table minority of our correspondents, and as do a few of the most proper kindergartners. Ultra-saccharine and nauseating as some of the above epithets seem to the adult consciousness, their copiousness suggests the many-sidedness of childhood, when more than at any other period the manifold qualities of the race appear in the individual, and every new pet name is a new channel opened for new parental feelings. Love, whether during the honeymoon or in the golden dawn of true motherhood of soul as well as of body, still reveals to us a glimpse of the primeval impulse that gave birth to names, and that was perhaps one of the chief sources of language it-Many of these designations reflect in the clearest mirror which speech can command traits of body, acts, disposition, etc., that help the child to new points of view of self before his ensemble of parts is labeled by a single conventionalized name that has lost all its appellative root meaning.

Guppy, Bardsley, Barber, Long, Dorsey and other investigators of proper names show that everywhere personal names preceded all others, that in England second names were almost unknown among the yeomanry before the Norman conquest, and that everywhere there was once a time when everyone knew the meaning of their own and others' names. primitive history can be reconstructed by a study of names, which sometimes spread from a single centre and enable the expert to solve problems where a study of race and language fails, so that it has even been said that boundaries like those of Alsace and Lorraine could best be determined thus. Names in open and accessible regions are oldest: "hill countries contain the ethnological sweepings of the plains"; the slow rise of woman is marked by a great dearth of female names, save those formed by feminine endings to the names of males. Places, family, great guild-industries like the cloth trade, moral. mental and physical traits, flowers and animals, landscape features, rank, office, mythology, war, priest-craft are found to be the etymological root-meanings of nearly all names. Among modern and western people local names abound, but are rare in the Orient, and almost never occur among plaindwellers, like the Arabs. Most personal names were at first generic, expressing some property common to many individ-The rise of industries, life amidst strongly diversified scenery, the development of religion, social and political organization, and wider knowledge generally unfolded or ever larger number and variety of names, till now with all these resources and a vast international repertory to draw from, together with the practice of assigning several names, almost every individual in a large community can have a unique and only name. The conventionalization and arbitrariness of

most proper names open the way again to euphony of sound, weird fancies, associations, and even to superstitions, which may in part explain the frequent sudden wonder that in the most unexpected way sometimes befalls children who feel themselves looking at, thinking or saying their own names and automatically and almost imperatively querying: "Why am I John or Henry? what does it mean? how strange and funny? how different would I be if I was Edward or Robert? what is John anyhow? have I, or could I have another more real or fit name? how should I live up to John?" Often some human quality is assigned to the sound or the look of the printed word. A student, e. q., named McIntire, thought the head on his name too large for the body, that he should be making tires, was tired, should somehow be whole or entire, rejoiced that his narrow escape from being McGinty was a safe and sure one, thought the name was his by some accident and was meant for some other person, felt it insufferably tedious to bear forever, perhaps in eternity, the same tiresome name, that he must exchange it or somehow break away from association with so arbitrary and mysterious a symbol, or that it was a banner, and his life work was to plant it on some topmost pinnacle of fame and make it spoken with awe by an admiring world: all this in an intense, only halfconscious, reverv-like way.

VI. Most children conceive the soul or self in some particular form. (a) In Mr. Street's returns, above referred to, 144 thought it shaped like the body, as it is in many additional and supplementary returns to my own questionnaire. It is thin, ghost-like, perhaps bluish, or light gray; may be made of mist, fog, smoke, cloud, breath, gas, vapor; is often transparent; draped, but rarely colored; light enough to float; subtle enough to pass through walls, and sometimes with an aura of dread or physical chill. It is akin to shadow or the dim reflection in water which primitive man often identified with the soul; and it may be a baby, a giant, or small as the image in the eye.

(b) Many children conceive the soul as like some part of the body. For most of these it is heart-shaped, a heart in the heart; perhaps smaller, invisible, or else a special part of the heart, or a second heart above, beside, or set in the wall of the fleshy heart. For others, the soul is just red blood; for others, the stomach or abdomen shaped like a round bowl. A few make it the liver, a tongue perhaps of fire, a particular bone, lungs, brain, sexual organ, navel, the skin with nothing or air in it, phlegm and liable to be coughed up and partly or wholly lost; and some conceive it as a head with wings, an eye, a beautiful, perhaps trans-

parent, or jewel-like hand, or a pointing finger, or more often a foot of wondrous form and tint, or its sole (suggested by soul), or something set in or inside of a foot. For some it is the skeleton that goes to heaven or hell.

- (c) Next in frequency come animal forms. The soul is conceived as a dove, butterfly, eagle, turtle, mouse, worm, caterpillar, snake, spider, cat, hawk, bird of paradise, maggot, lion, wolf, as any chance analogy of sound or figure of speech may suggest. These forms are often associated with the quite prevalent idea of children that they may become or have been animals, and less often with their propensity to imitate their acts or noises. On this head, as in so many others, the data are too meagre, but are full of interest, and suggest a tempting line for further research.
- (d) The miscellaneous soul forms have a very wide range. Little girls often conceive the soul as a flower in full bloom dispensing fragrance—an image that may persist and undergo It may be suggested by the a high degree of refinement. child's name or some song or story. A stone either white or brightly colored, or a jewel of various size, shape and situation may do duty for soul. So may a glowing coal, a flickering, pale flame, or darting tongues of fire. Souls are stars, comets, winds, noises, clouds, not unlike those shown on a screen by Mrs. Besant, which are pink if in love, green if jealous, etc. They are fine lace, or soft, like velvet; good ones are white and bad ones black, with all intermediate shades of gray. Bubbles are souls, eructations, odors, particularly incense, suggesting Jäger's soul-smell; sparks from the fingers are parts of the soul, and lightning is new souls coming down from heaven. We hear souls in echoes, words, voice, and speech is soul, and so is animal heat. Souls may be eggshaped, and in the exact middle of the body, made of liver and too large to get out of the mouth till it is greatly shrunken by illness or broken by calamity or accident. tissues, perhaps wrapped around the heart, on which acts, especially our bad ones, are written and can be read, or they are invisible and live in heaven, coming down to the body only There may be several and, occasionally, many at death. Hartley Colridge used to describe his picture soulecho soul and shadow soul. Not only in dreams, but in waking souls may wander far away and visit absent scenes, and may get lost, strayed or even stolen by some hocus-pocus. Our souls may hold close communion with not only God and the dead, but with the souls of animals and plants, but no case appears in our returns of this communion with thingsouls, although this is commonly thought to occur. At the age of ten Louisa Alcott imagined her mind as a round room

and the soul a winged animal in it. There were shelves for the thoughts, and the "goods" were kept in sight, while the "naughties" were locked up, but kept getting out. Some bright children, even as old as fifteen, not only have no idea of soul, but never thought of any such thing, and to do so seemed uncanny.

Many, if not most, of these views are products of suggestion of some sort from pictures, literal interpretations of figurative speech, accidents of experience that cannot be traced, etc.; but their form is also conditioned by the necessity for the child to think in concrete terms of sense. To conceive abstractly even heat, air, wind, echo, smell is hard. chologists have often urged that we must drop all physical forms of thought in conceiving the soul, and held that to give it shape, color, weight or place is idolatry or materialism, that not only every metaphor of sense which gave rise to the very names, psyche, soul, spirit, animus, must be diligently eliminated, but that the root principle of the self or ego has no relation to time or space. Such extreme purgation muddles thought and may make our science and its application to education mere verbal cram, destroy every real criterion for eliminating contradiction, and favors crass reactions like modern spiritism. It seems thus a problem of great pedagogical importance, quite apart from materialism versus idealism, what images and metaphors should be used as most consistent with each other, most flexible to express facts, and what, if any, of these survivals of childhood should be preserved, at least for a time, and which should be eliminated. Until we can have some, at least, general conception of what we are dealing with in soul science or in education, we are exposed to the most wasteful and contradictory theories and practices. Are we studying or teaching a ghost or a brain, a shadow or physiological structure, a blue heart, a flame or echo, a state, phrenological bumps, or all together? Can we have a hypothetical soul-stuff that can be thought into modern brain histology and physiology, without being exposed to the obvious objections to materialism? The crass idea of matter is giving way at every point to a dynanism far more subtle than any conceptions of spirit were or could possibly be up to recent decades, and the intricacies of neural cells and fibres, their chemical complexity and rapid metabolism should be expressed in some neo-monistic hypothesis of the soul that education needs to take the place of such rags and tatters of superstition as those described above, and which often persist into adult years as a heritage of childhood.

These infantile conceptions are not a permanent back-

ground, a totality of experience, a unity of any manifolds, not more real, but often less so than the most vulgar things of touch, are neither products of psychological interpretation nor of metaphysical thinking, so that it is natural for the wellequipped psychologist to feel that his first duty is a muckrunning iconoclasm that seeks to make a waste tabula vasa of the beginner's mind. This, I believe, is wrong. should, with young students, reverse certain current methods, and instead of discussing the ego last, as most psychologists now do, the wise teacher will begin here and exploit the views of savages, children, animism, the soul-theories and discussions of Plato and Aristotle; touch not without a trace of sympathy Jäger's smell theory; explain the doctrine of sensible species; soul nomenclature; describe the mythology of souls of fire, lightning, animals; utilize wisely modern and ancient spiritualism, views of theosophists, reincarnation and transmigration, burial customs, ideas of absorption, diffusion, traducian and other views of the origin of souls, the different ethnic conceptions of its post-mortem existence, and from these topics pass to pleasure, pain, fear, anger and other feelings with instinct in animals, then to intellect, and sense Thus the grosser residual concepts of childhood would be eliminated, anthropomorphism felt in all its universal and constraining power, and an attitude of mind more tolerant and sympathetic than critical would be favored. It has been a grave misfortune that psychology has so often started with a study of sensation which, whether theoretically or experimentally treated, has as its pons asinorum on the very threshold all the bewildering scruples concerning reality and the nature of knowledge. The place for this is nearer the end than the beginning of philosophy.

The soul has been "entified" in many ways. It has been regarded as a split-off part of the primum mobile, an emanation from God and con-substantial with Him, pre-existent in, or as a star, coming voluntarily, or being sent to earth to take on the clog of a body as a penance, transmigrating through many lives, created at a given moment and put into the embryo, or physically propagated in familiar traducian wise. Ancient materialism conceived it as the finest, lightest and most subtile and pervasive matter. In ontological periods it is deemed a substance in which its qualities inhere, a nouminal thing in itself-clad in its faculties or ideas as phenomena. In ages of fear or impending judgment, stress is laid upon its simplicity and incorruptibility, so that fire can not decompose it, and it could survive even the awful cosmic weather of some dies ira. In the early days of the calculus, it was conceived as punctual or unextended, and now it is often de-

scribed as absolutely spaceless and timeless. 1 As combining these latter transcendental features, there never was anything so impossible in fact or hopeless to know. The monsters that children sometimes fancy that never could live are compounded of less incommensurate and contradictory attributes. Such a soul is not a mere jabbermock, but perhaps the most hopelessly hollow flatus vocis ever spoken, to lose which would not require Plato's windy day, and would be a wondrous gain to psychology.

Mental imagery for psychic processes has been greatly helped by neural concepts, although these are at present often confusing and inconsistent. Most common, perhaps, is just now the fashion of speaking of chemical molecules that are built up to a degree of complexity and by action reduced to a simpler state. But we have combined with this the thought form of the instability of a pyramid balanced or toppling on its apex, and also of loading and unloading, or discharging. These chemical concepts connect with Luys' phosphorescence, combustion, with the trophic background of life and mind, with products of decomposition, etc., and need careful and new elaboration. The days of Galvani and Volta, when even Humboldt printed two now obsolete volumes on the marvelous reanimation of tissue by electricity, have given us many thought forms, polarities, positive and negative, indifference point, long and short circuits, tension, conductivity, currents, etc., and are also helpful, but of a different order. Thirdly, the old idea of vibration still does service. In the days of Weber's long experiments with waves in his mercury

<sup>1</sup>As one example, from many that could be cited, see President McCosh ("Psychology of the Cognitive Powers," p. 8 et seq.): "We are not to allow ourselves to look on mind itself, or any of its operations, as occupying space, as extended, or a figure as having weight, motion, or rest," etc.

This reminds me of a scheme, of an opposite but perhaps no more absurd character, which I tried years ago in a lecture but long since abandoned, as follows: A psychomorph is the space area within the body in which any kind of physical action or change occurs that is involved in a psychic activity. This generic term covers all changes in muscles, glands, nerve cells, fibres, blood vessels, etc., but does not include external concomitants, as radiant heat, electric changes, and still less any alleged telepathic effects. A psychomorph, in other words, is the figure in space that would be stained by some reagent, if such can be imagined, that should paint the locus of all these changes as litmus paper reacts to acid and alkali, or, if all psychoses left their trace through the soma, like retinal purple. Of course localization has not progressed so far as to define very accurately this space for any single act or class of activities, although some pathological deliminations approach it, and it was only intended to emphasize a protest against the maddening surd of hyper-spatial and non-positional soul concepts. A neuromorph is the neural part of the more holophrastic psychomorph.

trough at Leipzig, a sine oscillation was almost thought to be the key of the universe, and Hartley's idea, sometimes strangely commingled with a perhaps Platonic concept of the soul as a harp, the brain as full of humming and tremors and making Æolian harmonies linger with us, not only in the fact of the sympathetic action of Corti's organs, but in the quackery of vibration cures, and allies itself naturally with the tonicity of intermittent muscular discharges. Again, we have the concept of a tissue, plexus, web, woven of complex texture: here, compact and firm; there, open and gauzy; or, if this is too intricate, or when fatigue overtakes us, we say the elements are felted or macerated; and yet again we have a hydraulic system of tubes or channels, deep worn, rutty and with narrow, rapid, or slow and uncertain, or with the currents obstructed. The old idea of images, eidola, copies, patterns, etc., still occasionally helps us out. While the Herbartian mechanics of thoughts rising above a threshold, colliding with or adding momentum to each other, is widely used with analogies from light and heat, reflection, struggle for survival, pressure, stratification and layers, volatilization and inspissation, mirrors, etc., but every article in this well-stocked property room of the psychologist is emasculated and with a kind of limbo reality suspended between merely diagrammatic illustration and the solid ground of histology and physiology, requires an incessant change of mental register, and, if we take it too seriously, it tends to the madhouse. How most of these concept forms can be utilized and confusion obviated, I shall try to show later.

Psychology needs a soul not so much as a rendezvous of

An ideomorph is the space area containing the somatic activities involved in thinking an idea, and a neuro-ideomorph that of the nerve action involved; its miomorph is the muscle area concerned. Boulomorph, geusomorph, haptomorph, chronomorph and osphresiomorph explain themselves. As each sense was thus provided for, I could use esthesiomorph for emotional areas; hormemorph served for instinct; nosomorph for disease, etc. The prefixes established in morbid psychology—meta-, para-, hyper- and hypo with a, ana and kata—also were occasionally convenient.

served for instinct; nosomorph for disease, etc. The prefixes established in morbid psychology—meta-, para-, hyper- and hypo with a, ana and kata—also were occasionally convenient.

Secondly, the word dyne with prefixes, psycho and neuro, was used to denote the intensity of change within the morphs. If the changes were cytomorphic, the energy involved was cycodynic. Troph, with the prefixes, designated the supply of nutrient material, not its use. A trophomorph, e. g., is the area of increased vascular supply. Finally, a toxomorph is the area of deleterious, or of waste matter, due, e. g., to fatigue. All psychomorphs may be thought of or defined by surfaces of isodynic intensity, some one of which marks the threshold of consciousness, below which only neuromorphs of decreasing degrees of dynism exist. Practice reduces the dimensions of boulomorphs, while increasing their dynism; hesitation does the reverse, etc.

concepts, or a basis of categories, or to make an identity of background, without which thoughts could not be connected: or as an eavesdropping "I think," which Kant said accompanies all processes, but which others believe to be only the creaking of defective mental machinery. It is not satisfied with inner perception, a sensus communis, with Czolbe's "sensation of relation," with Lotze's subjective ego, as "the theoretical explanation of somatic self feeling"; nor the Herbartian struggle of psychic elements for self-preservation; nor with any of Bradley's six kinds of self-consciousness; nor with the precipitate nostrification of current conceptions of the social self; nor with the idea of a confederacy of personalities into which the psychic dissection of hypnotism sometimes resolves the human psyche; nor with the gallery of memory pictures illustrating a biography which Hobbs thought made personal identity, and the loss of which Schopenhauer thought was the cause of insanity.

There is now much agreement that all these difficulties admit of practical solution by simply assuming the reality of an ego, more or less autonomous as a regulative hypothesis and going to work, holding perhaps with Froschammer that the mind grows inward, deep, free and unitary just in proportion to the volume of the world process that passes through us to deeds and history. The sensory regions of the brain seem better connected with the motor area than with each other, and find in it the unity they lack in an inactive life. ern personalities are in growing danger of disaggregation as life becomes sessile and passive, and if the self be as Hirth thinks, merely a biologically useful illusion which really helps us to cement the mosaic of our ego synthesis more firmly, it is at least a platonically "noble lie," and should help us against velities and caprice, absence of life purpose, and kindred practical dangers, beside which the grossest heresies about the ontological nature of selfhood are as insignificant as what might be called the allotropic debates whether the Iliad were really written by Homer, or by another person of the same name.

Indeed, do not the above classifications of children's ideas of the soul, to say nothing of the philosophical propensity to substantialize it in a way that, as the psychic researchers copiously illustrate, tends to apparition theories, show that, just as certain forms of nature worship in children prepare the way for purer religion later, so a dignified and modified epicurean materialism may at a certain early stage of thought be the best basis for soul, immortality, and even God, bad and false as this is as a finality? For the pedagogy of the ego, therefore, this should follow the above discussion of the

crude soul ideas of children and savages. At least this is better than a soulless or epi-phenomenal psychology.

VII. Certain philosophic stirrings often begin very early in life in a more or less automatic revery of questioning the validity of (a) sense impressions. Many describe in their own early lives or in children they know sudden outbreaks of questioning, whether window, tree, hand, etc., that are being gazed at, are real. "Do you truly see this?" "Is it real, or am I dreaming?" Some objects suddenly seem strange, queer, funny, and children pinch themselves to be sure that they are awake. This experience is most common with vision and rarest with touch and taste, but not uncommon with hearing. "How do I know that objects are not mere appearances?" These experiences seem to originate in some phenomena of sensation, perhaps in some transient functional unhitching from motor or reactionary centres, and this stimulates the questioning, which may extend to the whole of the visible universe. Perhaps the sun, moon, stars, sky, clouds, distant hills are doubted and seem to need some vouchers for their reality. Children look very hard at objects sometimes in an almost dazed way, perhaps open and shut ears, eyes, or both, as if to test the permanence of sensations. When glasses are first worn this primitive scepticism sometimes first makes its appearance, or when things are seen through colored or obscured media. These experiences often occur in spells of revery or idle contemplation. Juvenile reflection easily extends to spectral doubts about the world or things generally. The soul seems to be herding ghosts or phantoms instead of the wonted realities. These impressions can hardly be explained as hypnogogic, for sometimes the mind is roused at once to the greatest interest and activity by them. It is as if there were a sudden divorce between sense and thought and the visual apparatus became unusually objectified and its deliverances held off at a distance for scrutiny. senses act normally they are more reflex and automatic than usual. Perhaps thought or feeling now first declares its independence of sense and now actualizes a deeper reality, more intimate and internal, compared with which objects seem shadowy by contrast. If so, these experiences mark the growth apace of a more spontaneous and vital self, until the world seems a mirage or hallucination for an instant, and perhaps the Berkeleyan argument has this psychologic genesis or point of departure. These dim flitting experiences could not occur without causing, or unless caused by a deeper sense of self.

(b) We must make another although related category for such queries, no less common, as: "Am I real?" "Do I

really live, or am I only make believe, like dolls?" "What "What is it to be an I?" "What do I do when I think, or what is it in me that feels, talks, etc.?" "What makes my soul and body so different?" "You strike my hands and feet and hurt them, but cannot hurt the real me inside." "Why can I not see myself think when I close my eves?" "How will my soul look when I am dead?" "What is the me that you cannot see if I close my eyes, or if I hide my head so you can only see my body; or, what is it makes my legs walk?" "What learns my lessons?" "What lasts all night, so I am not changed in the morning?" "Why am I the same that I was as a baby?" "What is it that is sorry, glad, happy in me?" "Why does it hurt me when I cut my finger?" Several describe themselves as pondering over some of these problems by spells, asking their parents without satisfaction, and even becoming tired, frightened and half sick by being preyed upon by such insistent queries. Perhaps this marks the dawn of self-consciousness proper when the ego is first glimpsed or felt after. No returns in our repertory show a trace of Hume's scepticism, but the ego is assumed to be both substantial and actual. Perhaps now new sources of inner energy and spontaneity are opened, and in its new-found independence of self, the soul finds one of Fichte's new potencies. To be able to think, feel and will in emancipation from the thralldom of sense and its reflections, marks the advent of a real psychic freedom that first manifests itself in these crude hieroglyphs of experience. At any rate I am convinced that it is possible to approach the whole problem of epistemology from a new genetic standpoint, and that these experiences suggest it.

(c) Quite distinct from either of the above are the frequent juvenile questionings that suggest the possibility of a very different consciousness or self from that at present existing. "Am I myself, or not?" "What makes me the way I am?" "Why am I not she, or why is he not me?" "If there was no I, would there be another in my place?" Fifty four returns describe wondering how it would have been if their father, mother, or both, had been different. "If papa had married B, whose girl would I have been?" "Would I have had curls?" "How different would I feel, act, look, or would I be at all?" Children very often suffer for years, perhaps in silence, with the fear that they are adopted and their parents not really theirs, and interpret all that happens about them on this theory, against which no assurances avail. Often they play, sometimes for weeks or months, that they are others, or have other parents. "What name would I have had if C had been my mother?" "Would I have been

in heaven?" "gone there without coming to earth?" or "just not been at all?" Children often go over the list of their friends to see if they would become or change places with them for a time or for good. "Why was I not M (another girl born the same day)?" Some long to get into others' souls to see how it looks there, to get secrets, or to be differ-Some imagine themselves someone else, to see if others feel toward us as we do toward them, to escape ennui, or to know how it seems to be colored, etc. They wonder how it would feel to be a tree or rose. Many wish to be flowers, and a bright girl of four believed she was a speaking flower. Imitations and even impersonations of animals are still more fre-A girl of five, e. g., imitated a horse persistently for days, others will drink like a hen, cat or cow, or insist on sitting on eggs and roosting with the hens, pretending to fly, until they almost fancy they do.

The dramatic passion is almost universal with children. They personate all kinds of people, and imitate even defects. "Let us play we are sisters," said two sisters, as if the fiction gave added charm or perhaps reality to the relation. seems as if children sometimes hate to have or be a self; felt that personality was not essence but phenomena, and before they attain the virtue of unfolding what is peculiar to self, strove to develop what is common to all the species; feel reluctance to be merely a specimen of a type, and experience a touch of the sublime indifference of nature and of philosophy. A girl of five wrestled sometime with the problem, "Am I not a dog straightened out?" In their plays children even become a post, street-lamp, rock, chair, mirror, table, tree, etc. Only five children state that they long have deliberately wished to become another. A girl of six passionately felt that she could and would not be herself; because it was too dreadful. When angry or forbidden some desire, children often wish they were someone else. Girls frequently wish to be boys, and often expect to be when they are older. or fear they may become boys. Others fear at night that they will wake up someone else in the morning; others suffer greatly for fear that they lack sense, or are idiots, or insane. While special features, qualities, accomplishments, brain, stomach, knowledge, music, gifts, disposition, and still oftener wealth and circumstances of others, are very commonly desired, a great majority are glad they are themselves and would not really be turned into anybody else, especially into certain persons whom they dislike. "I am glad it was papa who found me before anyone else, for they might have changed me." "You wanted a boy, but did not know it was going to be me," said a boy of four. "What was I before I

came into the world?" "Were things the same before I was born, and will they be the same, or will they be at all after I am gone?" "What if I had not been born?" "Where did I come from?" "Why are we in the world, anyhow?" "Will things stay when I am old?" "Who is God, anyhow, and why did He make souls and give us thoughts and watch us use them?"

These phenomena are hard to interpret, but suggest that childhood is generic and full of promise and potency of many kinds of personality and consciousness before the shades of the prison-house close in upon it. There is a trace of pathos if not injustice about separate existence. Individual experience is so partial, so limited—heredity with its vague masses of ancestral reminiscence is vaster than any individual life or mind can express,—and the frequent sense of being exceptional or strange suggests that what we call consciousness is dross or a frothy syllabub, and that there is a larger subliminal existence, a natura non naturata of the soul that is doomed to remain a dim region because the light that might illuminate the whole obscurely had to be concentrated in some part, and because personality so involves limitation. The hunger for life may become almost a passion to know what is taking place within other skulls than our own. desire to be citizens of all times, and of all grades of being and spectators of other souls from the inner standpoint of their own consciousness. The confessional, intimate social converse, knowing and utilizing others' experiences by the questionnaire method, etc., owe part of their charm to the longing for the broadest possible basis of experience and to touch life at every possible point, even if it be vicariously.

(d) Another experience of childhood involves a certain bifurcation of the soul. When they cry many children pity themselves, run to the glass to see how they look, and, even in much agony of grief, waste a great deal of sympathy upon themselves, feel sorry for themselves if they are angry or in pain, sympathize even with their moods, and try to comfort themselves if vexed or gloomy, seeming to stand aloof like another person and feeling sorry for themselves that they suffer. Many stroke and pat themselves, address themselves by pet names as if they were someone else, feeling that pity is their due. Others, particularly girls, when tired or ill, love to fancy themselves growing weak, fading away like a flower, dying young in a flood of self-pathos, bitterly bemoaned by imaginary friends, and are comforted when weeping by observing how red their eyes are and how miserable they look. Others try to help themselves by giving counsel or offering reasons, apostrophizing themselves as

hateful or shameful things; others conceive themselves as made up of good and bad selves, which dispute, argue, and strive for the mastery. Scenes are fancied and even trials at which oneself is judge, before whom the good and bad selves argue the case. "I went where I was forbidden and enjoyed it, but felt it wrong, so there must be two of me." Dialogues and soliloquies, often exciting and in some cases becoming habitual, occur. Especially in the country, children sometimes discuss with themselves nature and their own moods; talk with winds and trees, and imagine answers, mutter dialogues between their own desires and the absent but imagined parents or conscience; and sometimes inflict blows upon themselves if the controversy becomes heated. A few children address their bad desires as Satan; shake themselves, after disobeying, to get him out, etc. Even infants often cry intensely, but peep up to see whether they are carrying their point; cry for effect, and perhaps stop and play happily with ludicrous suddenness if they find themselves alone in the Such phenomena as the above are no doubt mainly due to and are among the earlier forms of a social self-consciousness. The real child is the one party, and the will or command of the parent, or the standpoint of the spectator interested or disinterested, is the other. Some of these experiences suggest an almost primitive outcrop of some sort of categorical imperative, if Kant's term is really the proper characterization for conscience in its nascent state; while others The latter are suggest one or more imaginary companions. often only extreme cases of this bifurcation.

(e) Stronger, perhaps, than any of the above tendencies; stronger than the sometimes half insane rage for questioning about God; the remote and infinite in time and space, that make children seem to leave the world and fear that they shall wake up and find there is no earth or anything else; stronger than the backward gropings of the soul toward its own beginning and cause, is the universal protension toward maturity which impels every child in its plays and thoughts to anticipate adult life. Children imagine and imitate "grown-ups" in dress, manner, conversation, select their vocations when infants for the pettiest reasons, until it seems as if the view of Groos was right that most of their games are practice for what must be their adult activities, and that this is the chief business and purpose of childhood. long to be rag-men, to have nice bells; express-men or conductors, to ride all day; merchants, to have candy; teachers, to mark on the board; milliners, to have pretty hats; plumbers; milkmen; boarding-house keepers, to get rich; a drummer, errand-boy, etc., because some friend is. But on the

other hand the limitations of Groos' theory are painfully apparent in a large class of play activities I shall describe elsewhere, which seem to exercise rudimental psychic organs and to give them the needed stimulus to vanish before maturity can be attained.

When any sense impression is regarded as such, which occurs most often first in revivals in the absence of the object, the first invagination of an inner self occurs. But for the power of revival shown in spontaneous recollections, selfconsciousness in the epistemological sense would either not arise or be long deferred. This occurs in the various sense spheres, in each of which residua of past sensations accumulate in stock, and are arranged like to like by agencies related to those which which Maxwell called "sorting demons." We are already on the way from Locke's first to the second of his two sources of all knowledge, from sensation to This involutive process works at each sensecentre, and will slowly carve the inner self out from the body as the childish experience above described deliminated the skin-bounded body from the world of impression in which it was first imbedded. About every efferent centre motor images are also accumulated. At first inner perception is a dim realm of shades, but the shades gradually take on reality, form, color, motion, and may be mistaken for sensations themselves. This introverted, gastrula-like stage of thought is often marked by what seems to stupid and morally bigoted parents and teachers, lies. "I saw a thousand bears and tigers in our yard," means a sense image of a number of these animals springing up in my mind clearly and for the first time without any corresponding objects, while it begins to dawn upon the child that he carries possible menageries in his imagination and is getting independent of sense. Perhaps, too, in the embarrassment of being overheard talking to himself. he learns  $_{
m the}$ difference between speaking and thinking, and divests his psychic processes of other muscular forms of expression, and learns to think acts it cannot do, for repression excites subjectivity. These lies of sense and of achievement are a quite distinct stage of mental evolution to which we shall recur, because the power to play and work with these seems to mark the line between the animal and the human psyche. The outer is known through the inner, there is a perception of the products of former perceptions. child no longer gives himself fully and with entire abandonment to the objective world, but begins to draw back a little even from his own body, which ceases to be a part, or at least the whole, of himself.

As thus self-consciousness slowly arises by involution from

object-consciousness, and apperception from perceptions, instead of lingering in the lower regions of sense images the noetic passion may strive for a knowledge of knowledge raised to some higher potence, and be drawn towards the vortex of the mysterious but fatal involucre of solipsism, which, to change the figure, is like an encystment, from which the soul has no palingenesis. No matter how many rival ways of escape from agnosticism may be patented, just in proportion as the world comes to seem only my concept will every volitional or emotional reaction upon it seem unreal. lative, as in morbid psychology, delusions of greatness go with progressive paralysis. Fichte's familiar but unique and matchless romanticizing with the idea of self by anthropomorphizing the universe into an absolute cosmic ego, whose essence it is to posit itself as being, whose "I am" is the only possible deed or act, to which all objectivity is only its own reduced activity, and which is to be annihilated and destroyed by moral reaffirmation, may slightly inebriate the sanest of us. but we must not yield to the fatal ubris of Titanism, and try to inflate our puny egos to God-likeness of this kind. entation, representation, re-representation, etc., however far continued, and on however many superposed Jacksonian levels which the future may make possible, and to whatever high potential knowledge may thereby be raised, can have no other possible meaning than a practical one. We are not forcing the ego back to its lair, stripping off its more outer and then more inner garments with any possibility that it will ever thus, as Tertullian prayed, stand forth at last, naked, pure, free, a precious kernel, fully shelled out of its last husk. To assume any identity between subject and object, as Schelling did, or even an Hegelian equipolence, is to belie the very nature of the fiery particle within us, which, as if it were the culmination of the biologos itself, is not expressed in any of even all of the forms it has made; but whose essence it is to create, and which is the only actus purus. By its spontaneity the attention presses in from point to point, and what it has been and done is only the prelude to what is Whether it will ever entirely eject or objectify itto come. self in some far-off apokatastasis, whatever such a state may have meant to the mystics who have reveled in its description. seems extremely improbable, because, in nature's economy consciousness is always either remedial or directive, and the automatic is always closing in upon it. The idea of a centre or a state of all consciousness, as we understand that most polymorphic of all terms, whether of a being who simultaneously knows all, and directs all details of the universe as steps in accomplishing a maturely deliberated policy, or of

monadic souls, each parvus in suo genere deus, reflecting the entire universe, is a dream of lotus eaters, a fool's paradise, for it immolates nature, whether human or divine, to intellect. In fine, introspection can never solve the problem of the self.

The influence of other selves upon our own self begins in the mysteries of heredity and takes a more objective form in gestation. Whether the mother's movements are tranquil or sudden and violent is registered upon the body and soul of the new life she carries, as the planchette records every change in the tension of arm muscles; she who does most for herself does best by her unborn child. after birth her movements act no longer through a fluid medium, her touches, pats, caresses, the act of nursing, etc., make for some time a large part of the child's outer world of change. Perhaps as probable a beginning as any for the social consciousness of the child is its first recognition of its mother's face, which occurs during the first few weeks of life, and which many of our returns emphasize as an event of great distinctness and importance, as did Froebel. The child is born with the power to cry with great vigor, but the power to laugh comes very gradually and later, and it is often this recognition that causes the first smile, and may excite it to writhe all over with joy. It is easy either to speculate or poetize about this event. Before, perhaps, the child is solitary, alone in the universe, so far as its own rudimentary consciousness is concerned; but now the first "thou" looms vaguely up in the void. Possibly, too, this moment is the natal hour of the world of objects, of all of which its mother's face is the "promise and potency," and from this as a starting point de repère the child's mind slowly delineates im-At any rate, it is pressions of other selves, if not things, etc. the eye that chiefly fascinates, and, although a stranger might have been detected before, especially by touch, this eye and face at least are now known to sight. Sympathy is now born, love has its object, the recognition involved marks the first conscious memory as an act of joy of a new and unique kind. Starting from the face and breast the mother's body is slowly defined, although her eyes and, perhaps, mouth, hair, etc., are noted first; the child notices its own hands, feet and ears before it does those of its mother's, and also becomes aware of its own internal organs and processes first, and the instinctive comparison part by part above described defines its first somatic "other" as well as its first somatic self.

Meanwhile the child is subject to many manipulations by the mother. Her face is associated with a vast variety of touches, sounds and movements that make her the source of a great part of all the changes possible in the infant's psychic

She causes it to pass from hunger to satiety; from cold and wet to warm and dry; from one attitude and position to another; her presence means every possible pleasure, and her absence every possible pain. The sense of being alone even for an instant is the desolation and horror of She is the child's Providence, on which it is the abvss. absolutely dependent to a degree that few of the most religious men ever really conceive themselves to be on God. she fails to make herself thus the bright focus in the child's nascent social consciousness and be all a good mother can and should be, the child's own personality will be less organized and unified and will have less power to reverence the divine personality at the heart of the universe whose place she is shaping in the soul by her own, almost as the wooden model makes the matrix in which the iron will later be cast. She, for a time, embodies its entire world of others, divine or human. She is society, and from her all other persons are learned and differentiated. They, too, dawn upon the infant's mind as she did, eyes and face first, suggesting platonic or cherubic heads, and are slowly defined in body and act as she was.

Again, in all its good moods the child's rapport with its mother dominates its conduct. It early comes to do all she smiles at and to avoid all else, as if its only vocation were to divine and follow all the lines of her likes and wishes. nature expands not only toward, but in proportion to the sunshine of her favor. It respects all she smiles at, even buffoonery; looks up in its play to call notice and study the currents of her sympathy. If she is happy when the child is good and slightly saddened at wrong, the normal child will choose the right as surely as pleasure increases vitality. cannot act on her fear and should not on her resentment, but it can act on her love, and if that is strong and deep, obedience, before language can be much understood, will be an in-The mother, too, is the child's first pattern and exemplar, and sets the copies for a mass of imitation, conscious and unconscious. Her rhythms in motion, accent and inflexion are a contagion. As she is quiet, poised, reposeful or excitable, spasmodic, irritable and nervous, so is the child. If she is happy, euphorious, contented or sour, full of symptoms and aches, discontent or anxiety, each of these moods is reflected in the child. All these and a host of other influences emanating from the mother are registered in the basal strata of habits in the nutritive and motor systems, in rhythms of rest and fatigue, etc., that are not only unchangeable themselves, but condition all later superstructures.

But as a new planet is gradually thrown off a central sun

and slowly spheres itself and finds an orbit and then develops forms of life all its own, so the infant soul develops slowly to independence: but as the planet was made from the matter of the sun and never escapes gravity, so the soul never can escape what the mother was and did to it. The infantile charm of bo-peep plays with impressions of momentary existence without her. The timidity, fatigue or health of infants at a certain stage we may conceive to vary inversely as the square of the distance at which they can be left, carried, creep or walk from the mother before the inevitable sense of solitude or fear of getting lost overwhelms them. Other members of the household become too slowly increasingly prominent factors in the development of the child's social consciousness. For country children the interval between the family and others is more marked than in the city; for the former in their earliest years and also the family have more definiteness and also stronger attractions.

Soon two tendencies develop: one centripetal, inclining the child to its own home of which the mother is the heart, and the other centrifugal. Homesickness and the passion for other scenes and faces, illustrated, e. q., in truancy and the migrating instinct, often struggle with each other. children wander away, launching out into the big world, and leaving all behind them without fear or regret, while others show an equally abnormal dread of getting away from familiar faces. Owing perhaps to some reverberations of the ancient war of all against all in the long and bitter struggle for existence, all strangers, especially those with too unusual dress, features, acts, etc., are at some stage more or less feared, although with great difference of duration and intensity in different children. A peripheral limit of the expansive social tendency which radiates from the mother outward is marked for most children by deformed or colored people, policemen, soldiers, tramps, the doctor, coal-man, rag-man, etc., whom Between the too familiar and the all too strange and dreadful lies the wide field where the expansive social tendencies as love, slowly widening to include mankind, nature as a vast repository of personification, and curiosity which would see, feel and know all, meet and mingle with the deeper counter-currents of ancestral dread, and make strange eddies and whirlpools in the brain cell, nerves and pulses as well as in the soul. In some children the latter predominate and they are so embarrassed, shy and timid that they can do nothing before strangers without awkwardness and mental confusion. The attention of friends to the acts or persons of such children is the kinetic equivalent of the presence of strangers in its power to overstimulate inhibitions or to excite bashfulness; to be looked at is as paralyzing as to be placed before an audience. "Don't let anyone look at me," is a frequent request when something is to be done and a steady gaze may not be the "evil eye," or have power when directed to the back of the head to cause one to turn around according to current superstition, but arouses painful selfconsciousness or anger in children, and is often construed as an insult by adults. Others love to be in the focus of attention and do anything to attract and hold it; are stimulated by it to all sorts of "showing off," and are spoiled by flattery, and dull without it. The passion to be interesting and to compel others to like them may make children bold, vain, affected like George Eliot, who at the age of four would pound the piano with many airs if anyone called, or to make the servants think she was a great musician, yet this indicates great social sense and capacity. Such children are likely to lose the proper balance between love and fear which gives the psychic tension called from its various degrees and forms bashfulness, modesty, respect, reverence, docility, etc., all of which are manifestations of fear toned down, and variously tempered and alloyed. The very acme of social zest is where some expansive impulse has just won some new victory over fear, and the stranger, the bully, teacher, etc., treated with some new familiarity, the person with decided or superior manners, the critic or enemy faced. There may be flushes, tremors, or even conflicts, but the self grows with every such courageous affirmation.1

I can not find, nor can several anthropologists I have consulted, any trace of any such "well recognized period," nor anyone who ever thought that it existed "over the whole earth at once." Indeed there are many reasons why such a stage must have been both geographically and ethnographically limited in extent and brief in duration. Again, it is not the infant of one or even two years that would reflect the race stage described, did such stage or its reflection exist, but the boy several years older. Once more a careful scrutiny of returns based upon several hundred children I have col-

¹Professor J. M. Baldwin ("Mental Development, Social and Ethical Interpretations," p. 195 et seq.) thinks there are three stages of bashfulness: first, a primary, organic kind in the first year toward strangers; second, an opposite tendency to tolerate strangers and like persons generally, due to kind treatment; and third, a return of bashfulness in the second and third years. The second stage is said to have its phylogenetic parallel "in the rest man took after his release from the animal." This second stage of loss of fear, the author sees illustrated in the life of the Hebrew patriarchs, etc., and discusses whether such a period occurred "over the whole earth at once," calls it in a note a "well recognized period," but says that to confirm it would require much research he cannot bring, and hopes that his declaration of the hypothetical character of the parallel will appease the "learned critic whose red-rag instinct is keen for theory."

There are many influences in modern life that make for psychic disintegration, and tend to reduce our individuality back to a polyzoic aggregate of cells and unshepherded states. For many, life is sessile and receptive, whereas unity is a product of actions. Mere knowing disaggregates if divorced from practical life. There is, too, such a multiplicity of cultures and theories. The views concerning the ego would not, perhaps, equal in number the 289 theories on the nature of the highest good reported by Varo, but their conflict alone makes it impossible to lead what Aristotle called the purely theoretic life of reason. Mixture of blood and heredity causes the ununified, if not contradictory, traits found in mongrel races. Imperfect health causes fluctuations of mood and those alterations of somatic feelings which not only lay the basis of parasitic personalities, but may of themselves alone cause mental perversion and even alienation. The weaker the body, the more it comes to the front and commands: the stronger it is, the more it obeys and the less it appears in consciousness. Over-culture, so common now for feeble souls, both distracts and weakens. Too many or too alien ideas forced upon an unwilling intelligence are not marriage of the soul to knowledge, but rape, the analogies of the results of which could be traced out at great length. This makes real love of knowledge impossible, but may cause a meretricious itch for dabbling with great subjects. The history of philosophy teaches such minds merely to hold no opinions. The rage for examination and explanation prevents real acquisition, which is automatic, and acts not unlike an emetic in interfering with mental digestion. Too many companions of

lected, show no trace of Professor Baldwin's second stage of reduced fearlessness or bashfulness between two augmentations of it, but only a very steady reduction and change of base through all the early years of childhood.

Indeed, while believing the careful and prolonged studies of single children is one of the very best lines of work, and has given us some of our best data, I think that a mono- or duopaidic basis is not broad enough for speculative interpretation of such wide range. At least to estimate a work "drawn largely from direct observation of children," the value of which Professor Baldwin well says "consists in the possibility of their repeated corroboration," we should be told how many if not what children were studied, or at least what method was used to reach such general results. If, however, it is samply "the child" or the "concept of childhood" that here is analyzed, this method, too, has probably its place despite its peculiar dangers, but it is more that of the Baconian spider that evolves from within than of the ant that merely collects. Granting, however, both to have their place in the economy of nature, we hope both spider and ant may live to see the bee that both collects and evolves, enter the broad, new field of child study, which is now but a promising acreage of buds, and to taste her sweets.

the same, or of too many different sorts, city life, much society, and indeed civilization generally, is not favorable for the quiet, inner, Rousseau-like growth of country life near to nature. Too many toys, interests, studies, friends, dresses, pleasures, moods, and even too frequent resolutions of radical reform, are dissolutive.

On the other hand, an education that fits native interests. evokes will, has a natural instead of an artificial and programme-made unity; some occasional obstinacy and selfassertion, that contend for supremacy with other egos; the keeping of a personal conscience, a sense of duty and honor, and knowing how it feels to follow these against the mob; friends and interests, that the flavor of conviction be not utterly lost; some few, deep beliefs we could die for, even though the creed be not formulated; fixed and regular habits; vigorous thinking that has wondrous power to bring unity to the loosely cohering elements of our mental life; a life sphere that fits our ability and taste and that has not too many galling points of friction; a broadly based specialization that gives us a certain mastery in some small point, and is a refuge of the soul in which it finds compensation for many inferiorities; enough property to give an independent selfrespect, but not enough to make us in any sense its slave; just pride of country, home, family, and having a character and reputation in the community that are what we deserve and have distinct and marked individual features about them; the bearing of responsibilities;—these cement and strengthen the ego synthesis.

A person is a vast aggregate of qualities and influences vinculated together, treated and acting as a unit. After Cicero many ancient and mediæval works on oratory listed the traits of an ideal socius, best calculated to influence men. and most worthy of respect, or most provocative of imita-First was form, figure, complexion, and the factors of physical beauty, fine eyes, nose, chin, bust, foot, hand, shoulders, etc., the contour of anyone of which might have a perfection that was ravishing, and if truly put in marble would make a sculptor immortal. Physical beauty is an immense power, and ugliness is an eternal disadvantage. come dress and toilet, with every detail of hair, nails, shoes, head-gear, proper fashions, and even cosmetics, perfumery, etc., if and where needed, correct taste which is the beginning of art and which remedies defects of form, all of which are subjects worthy of long and detailed study as sources of proper personal influence. Third come the automatisms. which are among the most important media of likes and dislikes, and even fetichisms, tricks of articulation, of facial

expression, bearing and carriage, the use of the voice, positions and movements of hands and feet, smiling and laughing, habits of fan, handkerchief, napkin, knife and fork, gesture, inflection, all the minor morals of manners, the magnetic aura, atmosphere, presence, style, which reflect all one's environment, breeding and heredity, and which because they are unconscious reveal the true self that words, social forms and conventionalities so often hide. Then come the voluntary actions, either deeds accomplished or abilities which mark the range of the ego of will. What can one do? would he act under the strain of jealousy, anger, love, fear, temptation, and in any possible condition? What is the vocational sphere of action? where would character give way? self-control be lost? and how much energy is there? Fifth, what are the quality and flux of the habitual currents of feeling? the temperament and dominant sentiments? there the hearty euphoria of that good fellowship which covers a multitude of sins? the good heart that is Prince Hal's "sun and moon"? Does duty rule? or is the soul weakened by self-indulgence? Is it malevolent? tricky? hypercritical? How will it stand the strain of disappointment or affection? of publicity? fame? fatigue? Is it stable or moody? harmonious or unbalanced? sickly? selfconscious and morbid? or hearty? eupeptic? or eucholic? Then, and far less prominent than we think, come the mental equipment or intellectual possessions of culture, the size of the fund of knowledge, the inventory of mental resources, and especially the breadth and height of sympathies, both for persons and ideas, the range of interests, the judgment and sense in the use of knowledge, originality, and independ-If to these we add the still more adventience of thought. tious advantages of fame, wealth, birth and name, we shall have a magazine of influences which has a power to hold other souls up together and to keep them occupied and well directed, the vast and manifold beneficence of which psychology is still unable to trace.

Such and other highest human qualities united in parent, teacher, friend, preacher, professor, doctor, hero, ideal or super man, who can let all his faculties go and yet be only and purely good, are far more unifying for the souls of those within their sphere of influence than institutions, social traditions, or mere impersonal and unembodied instruction. The Homeric world had no state, church, school; no Bible, literature, science, or inventions; but all was solvent in personalities, and in the natural relation between men. It, and not the mobs of degenerates, is the true expression of man's gregarious nature, and hence its marvelous fit to the estate of

youth which is moulded by contact with great characters, and, if it does not find needed heroes and leaders, makes them often of the poorest material, or finds tinsel idols in the cheapest fiction. These, with enough errors and sinners to exercise the instinct of "universal opposition," which in due season and degree is so essential an ingredient of character, constitute the fundamental features in the environment needed to develop well compacted personalities.

When we are told that nothing but the soul can mirror itself, that self-consciousness is the Bible of the psychologist. I reply that only a part of the soul is therein revealed; that personality has far deeper roots in unconsciousness; that the testimony of consciousness, wherein only a part of the soul content knows another part, can not express the most important elements; that all the processes in it are land-locked, as in an inland sea, far from the great ocean of life and mind, because thought must at best imitate sense, however dimly and remotely, and that consciousness is "not the creator or bearer of the ego-synthesis, but only one form of its expres-Even if we had a complete history of the consciousness of every member of the race, it would be a very incomplete expression of the human soul, not only because consciousness is vet in its babyhood, and the best things are not revealed in it yet, but because from its very nature they never We have sought the real ego in the intellect. not there, nor yet in the will, which is a far better expression of it than thought. Its nucleus is below the threshold of con-The mistake of ego-theorists is akin to that of sciousness. those who thought icebergs were best studied from above the surface and were moved by winds, when in fact about ninetenths of their mass is submerged, and they follow the deeper and more constant oceanic currents, often in the teeth of gales. vitiating all the old aerodynamic equations.

We must, therefore, without neglecting these older oracles, turn to a different source for real knowledge of the real self, viz.: the objective study of every phase and every growing stage of the psyche and of the soma in animals, savages, and children. Soul is vastly larger than consciousness, and the highest powers are those that spring from roots that start deepest down in the scale of life. Consciousness is as different from mind as froth is from beer, and the syllabub of some of its exploiters and "promotors" suggests the mediæval barber's apprenticeship, which ended when the tyro could make two tierces of foam from two ounces of soap. Perhaps the excuse of some philosophic apprentices, were it as naïve, would not be unlike that of the Boston tapster, who, when

remonstrated with by his customers for selling so little beer and so much froth, replied that the better the beer the more it foamed, and also that the profit was in the froth.

Hence child study, because of these limitations of introspection, and even of consciousness, and because the real deeper self can confessedly never be thus known, turns to more purely objective methods. It is a homely term, and psychogenesis, paidology, or some others might have been more academic, but it represents a movement so fundamental that it was necessary to appeal to the larger constituency of virgin minds, who knew none of the prejudices so inveterate in philosophic schools and sects, and to utilize the deep instinct of parental love which has created all education systems and institutions. In doing this education and philosophy have both gone back to re-examine the foundations from which they sprang; have turned to first principles and to plain common sense as the ultimate court of appeal, and sought to reaffirm the practical obligations of these studies and to meet some of the crying needs for a philosophy that shall do for our land and age what the great philosophers of other periods have done for theirs. Recha was rescued from a fire by a stranger in white who vanished, and her gratitude idealized her saviour till she thought she owed her life to an angel, and her mystic, contemplative mind elaborated a cult of worship which gradually absorbed her life almost to the point of mental alienation, when suddenly came the announcement that a man, A. B., who had snatched her from the flame, was dying for a woman's ministration. Her illusions vanished, and she found sanity, and he was restored by her to life, and a career of philanthropy. Philosophy was to Plato a quest of eternal foundations, when a decaying state and a sophistic culture seemed to threaten general dissolution. Later it wrought old cults to unity and opened the way for Christianity, and still later gave it an organ. It gave science its methods and instruments, unified the Teutonic spirit, and expressed the English induction and utilitarianism, and in this country it laid down the methods of church, state, school and college. Latterly, however, we have been almost playing with philosophy and fascinated by not only unfruitful but unsolvable problems, have striven to be critical and polemic, brilliant and literary, gone astray in technicalities and details, revived problems once vital, but now dead, because no longer practical in the high moral sense; rendered a rather doubtful and uncertain service to religion and plain right living, and above all hypostatized to theoretical regions the agencies that were meant to save men from passion, fill them with enthusiasm for the ideal, purge their souls from faction,

jealousy, superstition and selfishness, and bring consecration to the vocation of leading lives devoted to the highest ser-With regard to the self, indeed we have lapsed almost to the standpoint of Condillac, who said: "When I smell a rose, e. g., this sensation of smell is my entire ego." Teachers of philosophy, now called, like Recha, to more serviceable work, are responding as she did, and the results already seen are a new sense of the need of these chairs, despite the many rival claimants for scholastic time and money, the better ministration to troubled adolescent needs, the decline of epistemological and simply historical, and the increase of neurological and ethical teaching, the aid to impending religious and social transformation, and the better development of children and youth to the fullest maturity of mind and body. This is the best and highest test of home, school, church, state and civilization itself, and the basis of the only true philosophy, not only of education, but of history.1

¹Although I have had help from many others in response to the questionnaires upon this topic, I desire to express my special indebtedness to the data collected by Miss Lillie A. Williams of Trenton, N. J., and Miss Sara E. Wiltse of Boston.